

## General

### Title

Preventive services for children and adolescents: percentage of patients age five years and younger who have had vision impairment screening.

### Source(s)

Wilkinson J, Bass C, Diem S, Gravley A, Harvey L, Maciosek M, McKeon K, Milteer L, Owens J, Rothe P, Snellman L, Solberg L, Vincent P. Preventive services for children and adolescents. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Sep. 96 p. [229 references]

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Process

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percentage of patients age five years and younger who have had vision impairment screening.

### Rationale

The priority aim addressed by this measure is to increase the rate of pediatric patients up-to-date with Level I preventive services.

Level I preventive services are worthy of attention at every opportunity. Busy clinicians cannot deliver this many services in any single encounter. However, with systems in place to track whether or not patients are up-to-date with the high-priority preventive services for their age group, clinicians can recommend the high-priority services as opportunities present.

Level II services have been shown to be effective and should be recommended whenever possible. If systems/care management teams are successful in keeping patients on time with high-priority services during illness and disease management visits, preventive services in the second group can be delivered.

Vision screening should be recommended for all children three to five years of age. Screening should be used to detect amblyopia, strabismus and defects in visual acuity.

The U.S. Preventive Services Task Force concluded that there is adequate evidence that early treatment for amblyopia, including the use of cycloplegic agents, patching, and eyeglasses for children three to five years of age leads to improved visual outcomes. The effectiveness of screening in preschool children is supported by indirect evidence that screening is effective in identifying strabismus and amblyopia, treatment of strabismus and amblyopia is effective, and more intensive screening leads to improved visual acuity compared to usual screening.

## Evidence for Rationale

Chou R, Dana T, Bougatsos C. Screening for visual impairment in children ages 1-5 years: update for the USPSTF. *Pediatrics*. 2011 Feb;127(2):e442-79. [PubMed](#)

Research Triangle Institute. Kemper A, Harris R, Lieu TA, Homer CJ, Whitener L. Screening for visual impairment in children younger than 5 years: systematic evidence review for the U.S. Preventive Services Task Force. Rockville (MD): Agency for Healthcare Research and Quality; 2004 May. 37 p. (Systematic evidence review; no. 27). [61 references]

Wilkinson J, Bass C, Diem S, Gravley A, Harvey L, Maciosek M, McKeon K, Milteer L, Owens J, Rothe P, Snellman L, Solberg L, Vincent P. Preventive services for children and adolescents. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Sep. 96 p. [229 references]

## Primary Health Components

Vision impairment screening; children

## Denominator Description

Number of patients five years old and younger

## Numerator Description

Number of patients five years old and younger who have vision impairment screening

## Evidence Supporting the Measure

### Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

### Additional Information Supporting Need for the Measure

Unspecified

## Extent of Measure Testing

Unspecified

## National Guideline Clearinghouse Link

Preventive services for children and adolescents.

## State of Use of the Measure

### State of Use

Current routine use

### Current Use

not defined yet

## Application of the Measure in its Current Use

### Measurement Setting

Ambulatory/Office-based Care

### Professionals Involved in Delivery of Health Services

not defined yet

### Least Aggregated Level of Services Delivery Addressed

Clinical Practice or Public Health Sites

### Statement of Acceptable Minimum Sample Size

Unspecified

### Target Population Age

Age less than or equal to 5 years

### Target Population Gender

Either male or female

## National Strategy for Quality Improvement in Health

# Care

## National Quality Strategy Aim

Better Care

## National Quality Strategy Priority

Health and Well-being of Communities

Prevention and Treatment of Leading Causes of Mortality

## Institute of Medicine (IOM) National Health Care Quality Report Categories

### IOM Care Need

Staying Healthy

### IOM Domain

Effectiveness

## Data Collection for the Measure

### Case Finding Period

The time frame pertaining to data collection is annually.

### Denominator Sampling Frame

Patients associated with provider

### Denominator (Index) Event or Characteristic

Patient/Individual (Consumer) Characteristic

### Denominator Time Window

not defined yet

### Denominator Inclusions/Exclusions

Inclusions

Number of patients five years old and younger

Exclusions

Unspecified

## Exclusions/Exceptions

not defined yet

## Numerator Inclusions/Exclusions

Inclusions

Number of patients five years old and younger who have vision impairment screening

Exclusions

Unspecified

## Numerator Search Strategy

Fixed time period or point in time

## Data Source

Paper medical record

## Type of Health State

Does not apply to this measure

## Instruments Used and/or Associated with the Measure

Unspecified

## Computation of the Measure

## Measure Specifies Disaggregation

Does not apply to this measure

## Scoring

Rate/Proportion

## Interpretation of Score

Desired value is a higher score

## Allowance for Patient or Population Factors

not defined yet

## Standard of Comparison

not defined yet

## Identifying Information

### Original Title

Percentage of patients age five years and younger who have had vision impairment screening.

### Measure Collection Name

Preventive Services for Children and Adolescents

### Submitter

Institute for Clinical Systems Improvement - Nonprofit Organization

### Developer

Institute for Clinical Systems Improvement - Nonprofit Organization

### Funding Source(s)

The Institute for Clinical Systems Improvement's (ICSI's) work is funded by the annual dues of the member medical groups and five sponsoring health plans in Minnesota and Wisconsin.

### Composition of the Group that Developed the Measure

*Work Group Members:* John M. Wilkinson, MD (*Work Group Leader*) (Mayo Clinic) (Family Medicine); Charles Bass, MD (HealthPartners Medical Group and Regions Hospital) (Family Medicine); Michael Maciosek, PhD (HealthPartners Medical Group and Regions Hospital) (Research); Peter Rothe, MD, FACP (HealthPartners Medical Group and Regions Hospital) (Internal Medicine/Geriatrics); Leonard Snellman, MD (HealthPartners Medical Group and Regions Hospital) (Pediatrics); Leif Solberg, MD (HealthPartners Medical Group and Regions Hospital) (Family Medicine); Leslie C. Milteer, PA-C (Multicare Associates) (Advanced Practitioner); Patricia Vincent, MD (Northwest Family Clinicians) (Family Medicine); Kimberly J. McKeon, MD (Olmsted Medical Center) (OB/GYN); Lisa Harvey, RD, MPH (Park Nicollet Health Services) (Health Education); Andrea Gravley, RN, MAN, CPNP (South Lake Pediatrics) (Pediatrics); Susan Diem, MD, MPH (University of Minnesota Physicians) (Internal Medicine); Jacob Owens, MPH (Institute for Clinical Systems Improvement) (Project Manager)

### Financial Disclosures/Other Potential Conflicts of Interest

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potential conflicts of interest, including recommendations regarding removal of work group members. This committee has adopted the Institute of Medicine Conflict of Interest standards as outlined in the report Clinical Practice Guidelines We Can Trust (2011).

Where there are work group members with identified potential conflicts, these are disclosed and discussed at the initial work group meeting. These members are expected to recuse themselves from related discussions or authorship of related recommendations, as directed by the Conflict of Interest committee or requested by the work group.

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#### Disclosure of Potential Conflicts of Interest

Charles Bass, MD (Work Group Member)

Family Clinician, HealthPartners Medical Group and Regions Hospital

National, Regional, Local Committee Affiliations: None

Guideline-Related Activities: None

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

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Assistant Professor of Medicine and Adjunct Assistant Professor of Epidemiology, Internist, University of Minnesota Clinicians

National, Regional, Local Committee Affiliations: None

Guideline-Related Activities: None

Research Grants: Received grant money to her institution from the National Institute on Aging for testosterone replacement in older men

Financial/Non-Financial Conflicts of Interest: None

Andrea Gravley, RN, MAN, CPNP (Work Group Member)

Pediatric Nurse Practitioner, Pediatrics, South Lake Pediatrics

National, Regional, Local Committee Affiliations: Maple Grove Hospital Lactation work group

Guideline-Related Activities: None

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

Lisa Harvey, RD, MPH (Work Group Member)

Director, Health Education, Park Nicollet Health Services

National, Regional, Local Committee Affiliations: None

Guideline-Related Activities: None

Research Grants: Receives grant money to institution from the Mayo Clinic related to decision support.

Financial/Non-Financial Conflicts of Interest: None

Michael Maciosek, PhD (Work Group Member)

Research Investigator, HealthPartners Research Foundation, HealthPartners Health Plan

National, Regional, Local Committee Affiliations: None

Guideline-Related Activities: None

Research Grants: Receives grant money to his institution from Robert Wood Johnson Foundation, Centers for Disease Control and National Institute for Health for preventive services, disease management and cancer treatment

Financial/Non-Financial Conflicts of Interest: None

Kimberly McKeon, MD (Work Group Member)

Obstetrician and Gynecologist, Olmsted Medical Center

National, Regional, Local Committee Affiliations: None

Guideline-Related Activities: None

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

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Clinician Assistant, Multicare Associates

National, Regional, Local Committee Affiliations: Minnesota Academy of PAs Board Member, American Academy of PAs Delegates Member

Guideline-Related Activities: None

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

Peter Rothe, MD, FACP (Work Group Member)

Internist, Geriatrics and Hospice, Health Partners Medical Group and Regions Hospital

National, Regional, Local Committee Affiliations: None

Guideline-Related Activities: None

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

Leonard Snellman, MD (Work Group Member)

Pediatrician, White Bear Lake Medical Center, HealthPartners Medical Group and Regions Hospital

National, Regional, Local Committee Affiliations: None

Guideline-Related Activities: ICSI Respiratory Illness in Children and Adults

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

Leif Solberg, MD (Work Group Member)

Director Care Improvement Research, Family Medicine, HealthPartners Research Foundation

National, Regional, Local Committee Affiliations: Board member for HealthPartners Research Foundation

Guideline-Related Activities: None

Research Grants: Receives grant monies paid to institution from Patient-Centered Outcomes Research Institute (PCORI) for high-tech imaging, Centers for Medicare and Medicaid Services (CMS) for COMPASS (Care of Mental and Physical and Substance Use Syndromes), Agency for Healthcare Research and Quality (AHRQ) for medical homes

Financial/Non-Financial Conflicts of Interest: None

Patricia Vincent, MD (Work Group Member)

Clinician, Family Practice, Northwest Family Clinicians

National, Regional, Local Committee Affiliations: None

Guideline-Related Activities: Board member for Preferred One Clinicians Association Insurance Company with money paid to her. Board member for Minnesota Academy of Family Clinicians Foundation, unpaid

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

John Wilkinson, MD (Work Group Leader)

Consultant, Department of Family Medicine, Assistant Professor of Family Medicine, Mayo Clinic and Mayo Foundation

National, Regional, Local Committee Affiliations: None

Guideline-Related Activities: None

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

## Adaptation

This measure was not adapted from another source.

## Date of Most Current Version in NQMC



2013 Sep

## Measure Maintenance

Scientific documents are revised every 12 to 24 months as indicated by changes in clinical practice and literature.

## Date of Next Anticipated Revision

The next scheduled revision will occur within 24 months.

## Measure Status

This is the current release of the measure.

This measure updates a previous version: Wilkinson J, Bass C, Diem S, Gravley A, Harvey L, Hayes R, Johnson K, Maciosek M, McKeon K, Milteer L, Morgan J, Rothe P, Snellman L, Solberg L, Storlie C, Vincent P. Preventive services children and adolescents. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2012 Sep. 98 p.

The measure developer reaffirmed the currency of this measure in January 2016.

## Measure Availability

Source available for purchase from the [Institute for Clinical Systems Improvement \(ICSI\) Web site](#)

. Also available to ICSI members for free at the [ICSI Web site](#)

and to Minnesota health care organizations free by request at the [ICSI Web site](#)

For more information, contact ICSI at 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; Phone: 952-814-7060; Fax: 952-858-9675; Web site: [www.icsi.org](http://www.icsi.org) ; E-mail: [icsi.info@icsi.org](mailto:icsi.info@icsi.org).

## NQMC Status

This NQMC summary was completed by ECRI Institute on September 7, 2012.

This NQMC summary was updated by ECRI Institute on January 29, 2013 and again on February 24, 2014.

The information was reaffirmed by the measure developer on January 13, 2016.

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## Production

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